

Six Days of a Neonatologist With a Multiple Antiarrhythmics-Resistant Permanent Junctional Reciprocal Tachycardia Case

Permanent Junctional Reciprocal Tachycardia

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To the editor:

Paroxysmal Junctional Reciprocating Tachycardia (PJRT) is an incessant Supraventricular Tachyarrhythmia (SVT), which can potentially cause tachycardia-induced cardiomyopathy if not controlled [1]. The arrhythmia substrate is an accessory pathway with slow and decremental retrograde conduction that is commonly located in the posteroseptal region of the Atrioventricular (AV) junction [2]. The heart rate of the 3-day-old male patient, who was born of a 36-year-old mother at 34 weeks gestation progressed 200/min as tachycardia and the patient was admitted to the neonatal unit. From the history of the patient, it was learned that fetal tachycardia started at the 32nd week of gestation, and the average rate was 190/min. The mother received treatment with digoxin and beta-blocker due to fetal tachycardia. On the Electrocardiogram, (ECG), the heart rate was 195-210/min, QRSs were narrow, RP ranges were long, and there were negative P waves in the DII, DIII, aVF derivations (Figure-1). PJRT was considered for the patient. The diagnosis was confirmed with the Holter ECG device. Echocardiographic result was anatomically normal. Aside from tachycardia, the ejection fraction (EF) was 60%, and patient's vital signs, other system examinations, blood electrolyte values and thyroid function values were normal. The patient responded to a short-term administration of a high-dose (400 mcg/kg) of adenosine. In the follow-up, tachycardia continued in the patient, and Amiodarone and beta-blocker were initiated. When there was no response, echocardiography was applied, which showed that the EF dropped to 40%, and findings of cardiomyopathy appeared. For this reason, propafenone was added to the treatment. As of the second dose of the propafenone treatment, the EF increased to 64% in the patient who had sinus rhythm. The patient was given limited liquid, Lasix, and Milrinone for some time during the treatment. On the 4th day of the hospitalization, despite the three antiarrhythmic agents, the patient had attack of tachycardia and was referred to another healthcare center that provided Catheter Ablation. Spontaneous recovery is very rare in these patients. Even if the condition is controlled with medication, Catheter Ablation is the permanent solution in the treatment. Another important point is that resistant SVT patients must be referred to a child arrhythmia center before heart failure develops [3].

References

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